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EXAMINER

MOORTHY, ARAVIND K

ART UNIT

PAPER NUMBER

2131

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/282,633

Applicant(s)

LITA ET AL.

Examiner

Aravind K Moorthy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-19 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 5, 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The examiner approves correction made to the specification. The examiner withdraws objection of the specification.

Claim Rejections - 35 USC § 101

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. **Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 20 is directed towards a computer program for controlling the client to request a first secure connection to the proxy and a computer program for controlling the proxy to use the session master secret and a session identifier to generate given cryptographic information. A review of the specifications, see pages 21-22, reveals that elements are entirely software and includes no tangible elements. The examiner suggests incorporation of a computer or a computer readable medium to avoid this rejection.

Claims 21-24 additional software elements or more detail to elements recited in claim 20.

3. Applicant's arguments, see page 22, filed 3/31/03, with respect to the claims have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

Claim Rejections - 35 USC § 112

4. Applicant's arguments, see pages 22-23, filed 3/31/03, with respect to claims 3-5 and 11-13 have been fully considered and are persuasive. The rejection of claims 3-5 and 11-13 has been withdrawn.

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Claim Objections

5. Claim 20 is objected to because of the following informalities: omitted word. On line 14, the word "secret" is omitted. Appropriate correction is required.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

6. Claims 1, 6-10, 17, 18 and 20-25 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 6-10, 17, 18 and 20-25 of prior U.S. Patent No. 6,584,567. This is a double patenting rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Applicant's arguments filed 3/31/03 have been fully considered but they are not persuasive.

As to claim 1, the applicant argues on page 24 that Vu does not disclose that there are two communication sessions between the client and the gateway. Examiner respectfully disagrees. As discloses in column 8, lines 54-64, the process then authenticates the client's authorization to access the requested service and if the client 16 is determined to have the

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required authorization, the gateway station 14 initiates a second communications process 19 with the remote host 46 in which the gateway station 14 simulates the client 16 without revealing the client address. Once the two communication sessions 17, 19 are operative, communication is effected between the client 16 and the host 46 by passing communication data between the two interdependent communication sessions. The examiner asserts that the authentication process for the client's authorization to the requested services would have been the first session and communication process 19 would have been the second communications session.

On page 26, the applicant argues that the combination of Vu and Raivisto does not show two communication sessions between a terminal/client and a mediator/gateway/proxy as claimed in the present invention. Examiner respectfully disagrees. As discussed above, Vu clearly teaches the claimed communication sessions. Vu was used to teach the client and the server negotiating a session master secret and delivering the session master secret to the proxy using the first secure session to enable the proxy to participate in the secure communication. Vu was not used to teach the two communication sessions between a terminal/client and a mediator/gateway/proxy.

As to claims 6-8, the applicant argues on page 27 that Davis et al does not teach the claim elements of independent claim 1. The examiner asserts that Davis et al was used to teach that it was obvious to use network security protocols such as SSL and TLS. The elements of independent claim 1 are taught by the combination of Vu and Raivisto, as discussed above.

As to claim 9, the applicant argues on page 27 that Rosecrans et al does not teach the claim elements of independent claim 1. The examiner asserts that Rosecrans et al was used to

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teach that the server was a Web server and the client was a pervasive computing client. The elements of independent claim 1 are taught by the combination of Vu and Raivisto, as discussed above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Davis et al provides motivation for using SSL or TLS. Davis et al teaches that SSL and TLS provides message privacy and provides data integrity for messages being transmitted [column 2, lines 6-16]. Rosecrans et al teaches that The interface, incorporated in a telephone, enables users to send stored graphical information, tied to selected numbers, to other users' phones for use or storage, by scrolling through stored graphics, displayed by the interface on the phone, to locate a graphic associated with a person or place to be called, and then, by pressing SEND, the particular phone number or numbers linked to the selected graphic are activated and the call or calls are made, see abstract.

The indicated allowability of claims 2-4 and 20-25 is withdrawn in view of the newly discovered reference(s) to Gabber et al and Hu. Rejections based on the newly cited reference(s) follow.

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8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vu U.S. Patent No. 5,623,601 and Raivisto U.S. Patent No. 6,081,601 as applied to claim 1 above, and further in view of Gabber et al U.S. Patent No. 5,961,593.

As to claim 2, the Vu-Raivisto combination teaches that the proxy uses a session master secret to generate cryptographic information, as discussed above.

The Vu-Raivisto combination does not teach that the proxy uses the session master secret and a session identifier to generate given cryptographic information.

Gabber et al teaches a proxy that uses a session master secret and a session identifier to generate cryptographic information [column 7, lines 40-54].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Vu-Raivisto combination so that proxy would have generated cryptographic information using the session master secret and a session identifier.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Vu-Raivisto combination by the teaching of Gabber et al because there is no permanent secret information stored on the proxy system [column 7, lines 43-46].

As to claim 3, the Vu-Raivisto-Gabber combination teaches the step of having the proxy modify requests and responses following the receipt of the session master secret and generation of the given cryptographic information [Gabber column 11, lines 37-53].

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As to claim 4, the Vu-Raivisto-Gabber combination teaches that the proxy performs a given service on behalf of the client while modifying content from the server [Gabber column 12, lines 45-56].

9. Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hu U.S. Patent No. 5,586,260 and Raivisto U.S. Patent No. 6,081,601.

As to claims 20 and 25, Hu discloses a client, server and proxy [figure 2]. Hu discloses a network protocol service for enabling the client and server to communicate over a secure connection [column 4, lines 5-17]. Hu discloses a computer program for controlling the client to request a first secure connection to the proxy [column 4, lines 18-43]. Hu discloses authenticating the validity of a certificate from the proxy, for controlling the client to request a second secure connection to the proxy [column 4, lines 59-66]. Hu discloses that the second secure connection requests the proxy to act as a conduit to the server [column 5, lines 41-58].

Hu does not teach controlling the client to negotiate with the server through the conduit to obtain a session master secret. Hu does not teach controlling the client to deliver the session master secret to the proxy using the first secure session. Hu does not teach a computer program for controlling the proxy to use the session master secret and a session identifier to generate given cryptographic information. Hu does not teach that the proxy modifies content in communications between the client and the server.

Raivisto teaches controlling the client to negotiate with the server through the conduit to obtain a session master secret. Raivisto teaches controlling the client to deliver the session master secret to the proxy using the first secure session [column 4, lines 60-64]. Raivisto teaches a computer program for controlling the proxy to use the session master secret and a session

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identifier to generate given cryptographic information. Raivisto teaches that the proxy modifies content in communications between the client and the server [column 5, lines 2-14].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hu so that after the second session took place, the client and the server would have negotiated a master secret. After a successful negotiation, the client would have delivered the session master secret to the proxy using the first secure session. The proxy would have been then able to generate cryptographic information using the secret and a session identifier. The client would have been able to modify content in communications between the client and the server.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hu by the teaching of Raivisto because is that the management of keys and other parameters needed for connection security is simple and secure. When applying this method, only a few security parameters need to be stored at mobile terminals. Another advantage of the method according to the invention is that mobile terminals using incompatible security algorithms and/or security layer protocols can communicate with each other with the connection security provided [column 3, lines 50-61].

As to claim 21, the examiner asserts that it is obvious that a proxy includes means for providing transcoding services on behalf of the client.

As to claim 22, the examiner asserts that it is obvious that the proxy includes means for providing encryption/decryption services on behalf of the client.

As to claim 23, the examiner asserts that it is inherent that the proxy includes means for providing caching services on behalf of the client.

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As to claim 24, the examiner asserts that it is obvious that the proxy includes means for providing monitoring services on behalf of the client.

Allowable Subject Matter

10. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 5, prior art does not teach that the given service is selected from a set of services including transcoding, caching, encryption, decryption, monitoring, filtering and pre-fetching.

11. Claims 10-19 are allowed.

As per claim 10, prior art does not disclose the proxy using the session master secret and the session identifier to generate given cryptographic information that is useful for participating in the secure communication.

As per claim 17, prior art does not disclose conducting a security handshake procedure between the client and the server to produce a session key and transmitting the session key to the proxy so that the proxy can participate in communications between the client and the server during the session.

Any claims not addressed are allowed on the virtue of dependency.

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Conclusion


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 703-305-1373.

The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-1373.

Aravind K. Moorthy
July 10, 2003


AYAZ SHEIKH
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